



Product brochure



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Product introduction

SVH-SohmVollHolz

The native wood with optimised quality.

We – Sohm HolzBautechnik, operating in the housing, public and commercial building, as well as agricultural and special building industries – process both native wood and wood provided by the building contractor with our in-house finger joint system to an optimised quality. This quality is confirmed by the certification EN 15497 “Structural finger jointed solid timber”.

It is possible, in the same production process, to sort the produced solid structural timber slats for our diagonal dowel timber elements according to the surface qualities “visual”, “industry visual” and “non-visual”. With the dowelling to the DD elements and the subsequent CNC timber framing, planing and manual timber framing, the production chain also ranges from sawn slats to closed wall, ceiling and roof elements for further fitting.



The starting products in our production line are wooden planks cut in a rift or half rift cut. These are processed by us, beginning with finger jointing, to dowelling to the DD element, onto the CNC timber framing system as well as hand timber framing, to fitting by our trained team.



DD-DiagonalDübelholz

The massive and natural wooden construction.

DiagonalDübelholz – the patented in-house development by Sohm HolzBautechnik – is manufactured from optimised SVH-SohmVoll-Holz slats and has been reliably used in building projects in every area and industry since 2001.

The finger-jointed solid structural timber slats are grouted and dimensionally stably jointed with cross-shaped (diagonally) fitted hardwood dowels. In order to reinforce this dimensional stability, the SVH slats are jointed to one another with a wave profile; the dowelled DD elements, on the other hand, are jointed with ridge and groove. The various flat edge surface profiles, 2 mm or 4 mm shadow gap, acoustic or structure profile – which is used as a clay plaster base or for other panelling – are milled into the slats even before the dowelling.

Product presentation

SVH-SohmVollHolz

General building and building with wood in particular have directionally changed over the past years and decades. Increased requirements of visible surfaces, delicate support structures with large spans and high loads, minimal tolerances and, last but not least, a quick and close-to-site availability characterise modern timber construction.

In order to meet the requirements of planners, architects and developers, we produce the SVH-SohmVollHolz material from regional resources.

Jointed SVH-SohmVollHolz is the ideal material for architecturally challenging and flawless wooden structures. It fulfils increased and additional requirements in terms of the following criteria:

- Stability
- Dryness
- Dimensional tolerance
- Dimensional stability
- Surface finish
- Durability
- Sustainability

Only native wood is used for SVH produced in visual quality, which is felled within a radius of 30 km and processed as raw material. The use of SVH also fosters native forestry. The complete value creation remains in the region and the short transportation routes of the wood mean an active contribution towards environmental protection.

In order to be able to guarantee the high quality standard, manufacturing is not only monitored by the in-house production inspection, but also by Holzforschung Austria.

SVH is used in supporting structures and for this it fulfils the following criteria:

- Wood sorting as per DIN 4074-I
- Technically dried to wood humidity 15 % \pm 2.5 %
- Finger-jointed lengthwise as per EN 15497
- Cross section is planed and bevelled on four sides

In a further production step, from the high-quality SVH-SohmVollHolz we also produce our DD-DiagonalDübelholz as a flat component for walls, ceilings and roofs.

For forest owners there is the option to use wood from their own estate for the manufacture of compensated SVH. The solid timber can also be made available for developers, carpenters or saws in standard lengths of 4 – 5 m.

Your benefits with SVH-SohmVollHolz

- Wood sorting according to load-bearing capacity
- Dimensionally accurate and stable
- Precisely monitored production
- Economic building
- Use of native wood
- Use of own wood possible



Production process

SVH-SohmVollHolz

1. The 4 – 5 m long raw wood is visually sorted and marked by our trained personnel according to desired surface quality.

Image:

Sorting centre on the finger joint system.



2. Subsequently, wood defects are cut out and the optimised wood is pronged together to the desired length.

Image:

A glued and grouted finger joint in a finished Sohm solid structural timber slat.



3. After the finger jointing the slaps are then planed on four sides.

Image:

The unplanned SVH slats come from the right, which are then planed in the planer (grey) in the gauge block.



4. In the processing of the slats into diagonal dowel timber, wave profile is also milled into the planer from the side.

Image:

Front view of a SVH-SohmVollHolz slat with wave profile as well as indentation on the right side for a surface profile with shadow groove.



Info, data and certification

SVH-SohmVollHolz

Production SVH
Info SVH

Wood types	• Silver fir	• Spruce	
Surfaces:	• Visual quality	• Non-visual quality	
Processing:	• Finger-jointed lengthways	• Planed on four sides	• Bevelled
Dimensions:	• Width: 6 cm	• Height: 8/10/12/14/16/18/20/22/24/26 cm	• Length: up to 15 m
Strength class:	• C24 (S10)		
Wood humidity:	• 15 % ± 2.5 %/technically dried		
Sorting criteria:	• As per DIN 4074-1		

SVH packet table:

Thick-ness (mm)	Width (mm)											Packet height (m)
		80	100	120	140	160	180	200	220	240	260	
60	Items	91	77	63	56	49	42	35	35	28	28	0.42
	m ³	5.678	6.006	5.897	6.115	6.115	5.897	5.460	6.006	5.242	5.678	
Packet width (m)		-	1.10	1.08	1.12	1.12	1.08	1.00	1.10	0.96	1.04	

Supply of raw product by building trade

Reference:

The data sheet for the supply of raw product by the building trade can be found for download on our website at www.sohm-holzbau.at/das-unternehmen/infos-downloads

Certification as per EN 15497

Production of the SVH-SohmVollHolz is monitored both by continuous in-house monitoring but also by Holzforschung Austria and is certified as a “structural finger jointed solid timber” as per EN 15497.

A copy of the certificate as well as further information about the SVH-SohmVollHolz product can be found on our website at www.sohm-holzbau.at/sohmvollholz

Product presentation

DD-DiagonalDübelholz

“Even when we are dealing with the individual elements, we always keep an eye on the big picture.”

With the idea for the manufacture of a flat and massive wood element, which is dimensionally stably joined by diagonally fitted hardwood dowels, we have been able to offer you a 100 % ecological, natural and solid design from the renewable material of wood.

The system is ideal for both wall as well as ceiling and roof structures. This allows every building to be constructed with a consistent wooden construction, all at once, so to speak, from the basement ceiling upwards.

With the at least 80 mm thick diagonal dowel timber elements, an important thermal storage mass is also available. This means that short-term temperature changes in the room air are muted and the heating energy requirements are reduced.

Wood burns – however, unlike other materials, wood keeps its stability even at high temperatures. That's why the solid DD elements with certain wall structures and thicknesses each have 60 minutes fire resistance. Separated sup-

porting and damping levels (functional layers) in the elements ensure simplicity in the details as well as flawless physical structure functions. This means simple planning and cost-effective execution, no hidden details and therefore a minimal building damage risk to you.

- Shrinkage and swelling is minimised thanks to the spreading of the diagonally driven in dowels.
- 100 % ecologically – without glue or metallic joining means.
- The design of building has the effect of a natural regulator for people in terms of humidity and warmth.
- Outstanding insulation thanks to multilayered structures.
- Increased sound insulation with wood concrete decking and corresponding structure.
- Surfaces with numerous options, e.g. pine selection, clay, plaster, tiles etc.
- Use of regional, native and own wood.
- Sustainable and CO₂-neutral design.
- Short fitting times thanks to high level of pre-fabrication – immediate load of the structure possible.
- The future in modular and multi-storey timber construction.



Production process

DD-DiagonalDübelholz

1. The finger-jointed SohmVollHolz slats are lined up to one another for each ten items and pressed into the diagonal dowel timber pressing system.



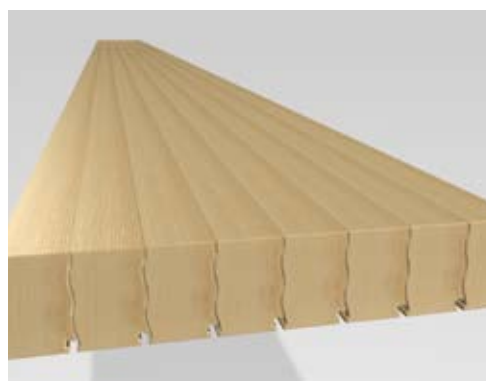
2. In the vertical and horizontal fixed position slat packets the hardwood dowels are pressed in at an angle between $15^\circ - 30^\circ$.



3. Thanks to the humidity compensation of the dry hardwood dowels with the surrounding wooden slats these swell and thereby minimise shrinkage of the finished element.



4. The therefore dimensionally stable DD component is ideally suited to precise processing.



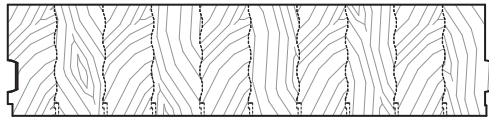
Profiles

DD-DiagonalDübelholz



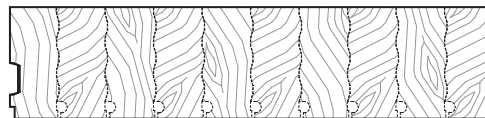
Flat edge

Closed surface without bevels and therefore completely smooth and flat view. Small contraction joints are a part of the natural wooden character.



Shadow groove

With 2 mm or 4 mm delicate joints – the modern wooden surface. Contraction joints are hardly visible any more due to offset seams.



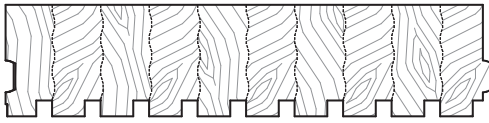
Acoustic profile

Use in projects with increased requirement for room acoustics. For example, in commercial or public building. Noise reduction and shortening of the reverberation time in rooms can be particularly effectively achieved thanks to the sound-absorbing ceiling.



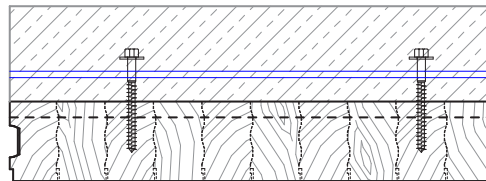
Profiles

DD-DiagonalDübelholz



Structure profile – non-visual

Use in supporting separating and outer walls as clay plaster base or for other panelling (grooves for installation guide).



Concrete bonding

Use in ceilings with increased requirements of static and sound protection, for example, apartment blocks or commercial and public buildings. Thanks to the ideal use of the respective material properties (wood=tension/concrete=pressure) large spans with high loads are also possible.



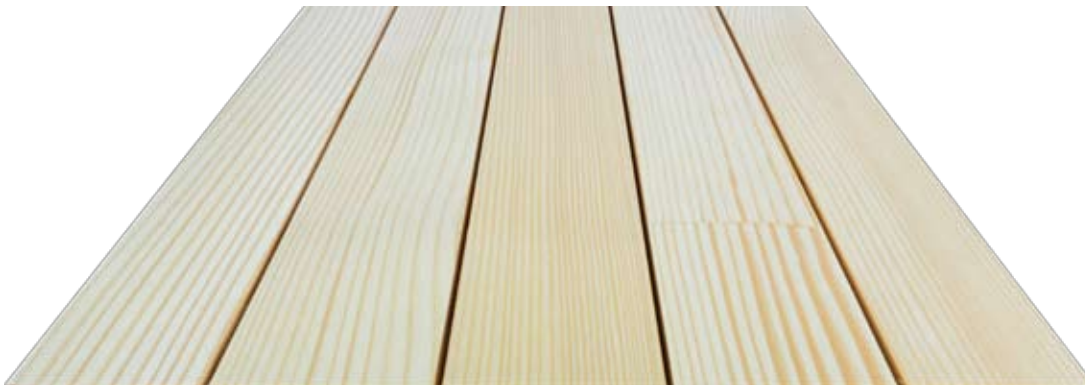
Pine selection

DD-DiagonalDübelholz

Pine selection DD



Flat edge



Shadow groove 2 mm



Shadow groove 4 mm or acoustic profile

Element thicknesses:	80 / 100 / 120 / 140 / 160 / 180 / 200 / 220 / 240 mm
Element width:	600 mm (coverage width)/variable element widths thanks to CNC timber framing
Element length:	3.00 to 15.00 m capped to ± 5 mm/lengths < 3.00 m possible
Slat widths:	approx. 60 mm/special widths upon request
Slat bonding	Wave profile with beechwood dowels
Element joint forming:	Ridge and groove capped
Comment:	Extended delivery period from element thickness 200 mm/surcharge from element length 13.00 m

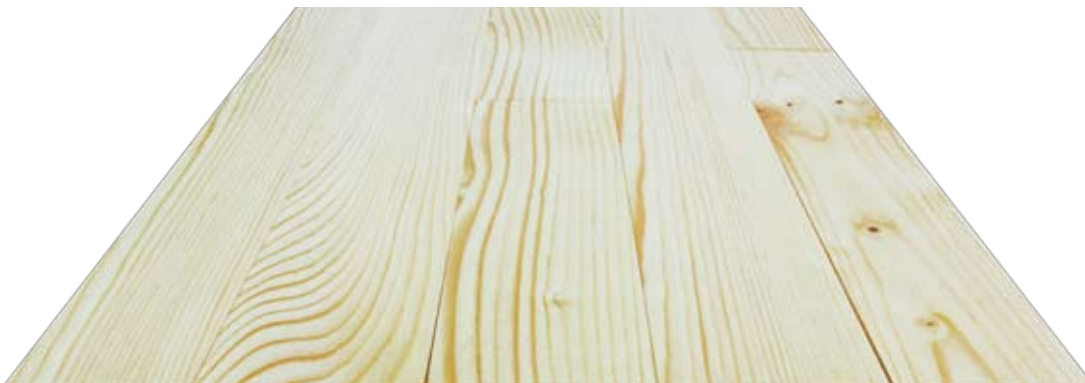
NOTE:

- Small intergrown pin knots possible
- Typical discolourations are possible for silver fir
- Concrete bonding elements are available in all surfaces

Spruce visual

DD-DiagonalDübelholz

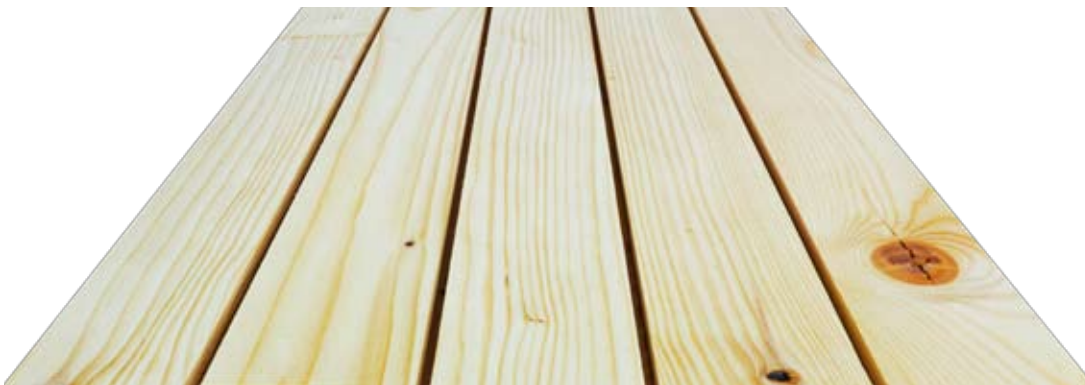
Spruce visual DD



Flat edge



Shadow groove 2 mm



Shadow groove 4 mm or acoustic profile

Element thicknesses:	80 / 100 / 120 / 140 / 160 / 180 / 200 / 220 / 240 mm
Element width:	600 mm (coverage width)/variable element widths thanks to CNC timber framing
Element length:	3.00 to 15.00 m capped to ± 5 mm/lengths < 3.00 m possible
Slat widths:	approx. 60 mm/special widths upon request
Slat bonding	Wave profile with beechwood dowels
Element joint forming:	Ridge and groove capped
Comment:	Extended delivery period from element thickness 200 mm/surcharge from element length 13.00 m

NOTE:

- Small pitch pockets possible
- Concrete bonding elements are available in all surfaces

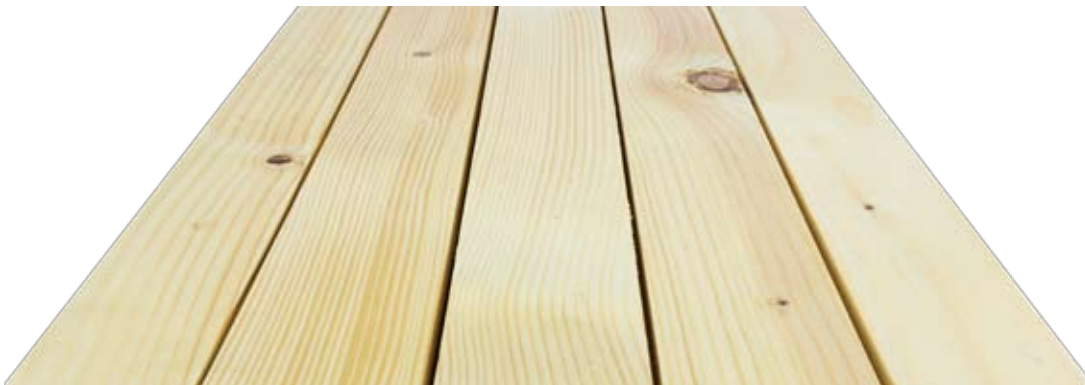
Industry visual

DD-DiagonalDübelholz

Industry visual DD



Flat edge



Shadow groove 2 mm



Shadow groove 4 mm or acoustic profile

Element thicknesses:	80 / 100 / 120 / 140 / 160 / 180 / 200 / 220 / 240 / 260 mm
Element width:	590 mm (coverage width)/variable element widths thanks to CNC timber framing
Element length:	3.00 to 15.00 m capped to ± 5 mm/lengths < 3.00 m possible
Slat widths:	approx. 59 mm/special widths upon request
Slat bonding	Wave profile with beechwood dowels
Element joint forming:	Ridge and groove capped
Comment:	Surcharge from element length 13.00 m

NOTE:

- Blueness and nail-resistant brown rot permissible
- Concrete bonding elements are available in all surfaces

Non-visual

DD-DiagonalDübelholz

Non-visual DD



Flat edge



Shadow groove 2 mm



Shadow groove 4 mm or acoustic profile

Element thicknesses:	80 / 100 / 120 / 140 / 160 / 180 / 200 / 220 / 240 / 260 mm
Element width:	590 mm (coverage width)/variable element widths thanks to CNC timber framing
Element length:	3.00 to 15.00 m capped to ± 5 mm/lengths < 3.00 m possible
Slat widths:	approx. 59 mm/special widths upon request
Slat bonding	Wave profile with beechwood dowels
Element joint forming:	Ridge and groove capped
Comment:	Surcharge from element length 13.00 m

NOTE:

- Blueness and nail-resistant brown rot permissible
- Concrete bonding elements are available in all surfaces
- Structure profiles are manufactured from non-visual elements

Product criteria

DD-DiagonalDübelholz

Sorting	Pine selection	Spruce visual	Industry visual	Non-visual
Wood type	Pine	Spruce	Pine/spruce	Pine/spruce
Knottiness	Almost knot-free Rift wood incision	Fine knots < 40 mm, loose knots and defect knots not permissible	< 80 mm	< 80 mm
Wood humidity	12 % (± 3 %)	12 % (± 3 %)	15 % (± 3 %)	15 % (± 3 %)
Fire protection	Fulfilled as per certificate	Fulfilled as per certificate	Fulfilled as per certificate	Fulfilled as per certificate
Discolouration:				
Blueness	Not permissible	Not permissible	Permissible	Permissible
Nail-resistant brown and red stripes	Not permissible	Not permissible	Up to 2/5 of the surface permissible	Up to 2/5 of the surface permissible
Red/white rot	Not permissible	Not permissible	Not permissible	Not permissible
Curve:				
Longitudinal curve	2 mm/m	2 mm/m	3 mm/m	3 mm/m
Torsion	2 mm/m	5 mm/m	8 mm/m	8 mm/m
Cracks:				
Radical shrinkage cracks (dry cracks)	Not permissible	Permissible (crack width max. 2 % of the respective cross section side)	Permissible	Permissible
Flash cracks, frost cracks, cup shake	Not permissible	Not permissible	Conditionally permissible	Conditionally permissible
Fibre inclination	Up to 100 mm/m	Up to 120 mm/m	Up to 200 mm/m	Up to 200 mm/m
Wane	Not permissible	Not permissible	Permissible	Permissible
Pitch pockets	Completely pitch-free	Minimally permissible	Permissible	Permissible
Insect damage	Not permissible	Not permissible	Burrowing up to 2 mm by green- wood insects permissible	Burrowing up to 2 mm by green- wood insects permissible
Cuts	Capped at a right angle	Capped at a right angle	Capped at a right angle	Capped at a right angle
Longitudinal slat bonding	Finger joint e = 50–500 cm	Finger joint e = 50–500 cm	Finger joint e = 50–500 cm	Finger joint e = 50–500 cm
CNC processing: Slight processing faults, knotholes, chipping	Permissible	Permissible	Permissible	Permissible

Notes and miscellaneous

DD-DiagonalDübelholz

General

Dimension changes below due to shrinkage and swelling upon humidity or corresponding dehydration must be taken into account in all detailed drawings.

Dimension changes

Due to shrinkage and swelling, for 1 % wood humidity change there is a dimension change of:

- Element length: 0.01 %
- Element width: 0.20 %
- Element thickness: 0.30 % – 0.35 %

Supply of raw product

Reference:

The data sheet for the supply of raw product by the building trade can be found for download on our website at:

www.sohm-holzbau.at/das-unternehmen/infos-downloads

CNC joinery

The following CNC joinery is possible:

- Length cutting
- Special processing (e.g. rabbets)
- Fitting suspension
- Recesses for sprinklers and light outlets

Note:

Before work planning, setting of:

- Fitting sequence
- Delivery date
- Delivery location
- Element joints

Before joining start:

- Approval of plans

Packaging/delivery/collection

Elements can be foil-packaged, if requested.

Tolerances upon delivery in width and thickness ± 3 mm.

Standard package size (W/H/L) in m:

0.62/1.10/13.00 = ~ 4,100 kg

Package arrangement in HGV varies. The sequence of the elements can change in the package (reason: load capacity reached). The packages are labelled for orientation.

Delivery dates can be fixed to a half-day. There are surcharges for delivery on Saturdays, Sundays or public holidays.

Storage

Store with protection against weathering and humidity. Storage room humidity should be adjusted to the expected wood humidity.

Installation

During installation and the installation phase, protect against weathering and humidity. Protective measures are to be undertaken in the planning phase for the building condition.

Wood protection

As with all wooden structures, the structural wood protection and the structural humidity is to be taken into account.

Miscellaneous

- Trickle protection is required depending on the use of the elements.
- Resin flow is not to be ruled out for spruce.
- In visible ceilings, minor improvement works to the fitted ceiling may be required (not part of the Sohm HolzBautechnik service).

Criteria	DD
Notes	DD

Measurement tables explanation

DD-DiagonalDübelholz

Basics

- Possible unsymmetrical loads in multi-span beams are not taken into account in the tables.
- Field widths are the same size.
- The own weight of the diagonal dowel timber has to be taken into account.
- No dimension increases due to fire protection taken into account.
- Creep deformations are not taken into account in the tables.
- Separated proof is to be created for the vibration behaviour.

Static basics

- E module: 1100 kN/cm²
- Bending: 1.0 kN/cm²
- Thrust: 0.10 kN/cm²

Info:

The letter after each figure represents which measurement is decisive:

- f.....Deflection
- M.....Moment
- Q.....Lateral force

Measurement tables I/200

DD-DiagonalDübelholz

Load (without DD own weight)	Element thickness								
	8 cm			10 cm			12 cm		
	1-field	2-field	3-field	1-field	2-field	3-field	1-field	2-field	3-field
1 kN/m ²	4.10 f	5.05 f	4.79 f	5.02 f	6.20 f	5.89 f	5.92 f	7.33 f	6.94 f
2 kN/m ²	3.39 f	4.15 f	3.95 f	4.20 f	5.14 f	4.89 f	4.98 f	6.11 f	5.81 f
3 kN/m ²	3.01 f	3.65 M	3.50 f	3.73 f	4.53 M	4.34 f	4.45 f	5.39 M	5.18 f
4 kN/m ²	2.76 f	3.19 M	3.20 f	3.43 f	3.96 M	3.98 f	4.09 f	4.72 M	4.75 f
5 kN/m ²	2.57 f	2.86 M	2.98 f	3.20 f	3.56 M	3.71 f	3.82 f	4.26 M	4.44 f
6 kN/m ²	2.43 f	2.62 M	2.81 f	3.02 f	3.27 M	3.51 f	3.61 f	3.90 M	4.19 f
7 kN/m ²	2.31 f	2.43 M	2.62 M	2.88 f	3.03 M	3.26 M	3.44 f	3.63 M	3.90 M
8 kN/m ²	2.21 f	2.28 M	2.45 M	2.76 f	2.84 M	3.05 M	3.30 f	3.40 M	3.66 M
9 kN/m ²	2.13 f	2.15 M	2.31 M	2.66 f	2.68 M	2.88 M	3.18 f	3.21 M	3.45 M
10 kN/m ²	2.05 M	2.05 M	2.20 M	2.55 M	2.55 M	2.74 M	3.05 M	3.05 M	3.28 M

Load (without DD own weight)	Element thickness								
	14 cm			16 cm			18 cm		
	1-field	2-field	3-field	1-field	2-field	3-field	1-field	2-field	3-field
1 kN/m ²	6.78 f	8.42 f	7.97 f	7.61 f	9.48 f	8.97 f	8.43 f	10.51 f	9.94 f
2 kN/m ²	5.75 f	7.07 f	6.72 f	6.51 f	8.01 f	7.61 f	7.25 f	8.94 f	8.48 f
3 kN/m ²	5.15 f	6.25 M	6.00 f	5.84 f	7.08 M	6.81 f	6.53 f	7.91 M	7.62 f
4 kN/m ²	4.74 f	5.48 M	5.51 f	5.39 f	6.23 M	6.27 f	6.03 f	6.97 M	7.02 f
5 kN/m ²	4.44 f	4.94 M	5.16 f	5.05 f	5.62 M	5.87 f	5.65 f	6.30 M	6.57 f
6 kN/m ²	4.20 f	4.54 M	4.87 f	4.78 f	5.16 M	5.55 f	5.36 f	5.79 M	6.22 f
7 kN/m ²	4.00 f	4.22 M	4.53 M	4.56 f	4.80 M	5.17 M	5.11 f	5.38 M	5.79 M
8 kN/m ²	3.84 f	3.96 M	4.25 M	4.38 f	4.51 M	4.85 M	4.91 f	5.06 M	5.44 M
9 kN/m ²	3.70 f	3.74 M	4.02 M	4.22 f	4.26 M	4.58 M	4.73 f	4.78 M	5.14 M
10 kN/m ²	3.55 M	3.55 M	3.82 M	4.05 M	4.05 M	4.35 M	4.55 M	4.55 M	4.89 M

Load (without DD own weight)	Element thickness								
	20 cm			22 cm			24 cm		
	1-field	2-field	3-field	1-field	2-field	3-field	1-field	2-field	3-field
1 kN/m ²	9.21 f	11.52 f	10.89 f	9.98 f	12.51 f	11.81 f	10.73 f	13.47 f	12.71 f
2 kN/m ²	7.97 f	9.85 f	9.34 f	8.69 f	10.75 f	10.19 f	9.39 f	11.63 f	11.02 f
3 kN/m ²	7.20 f	8.73 M	8.41 f	7.87 f	9.53 M	9.19 f	8.52 f	10.33 M	9.97 f
4 kN/m ²	6.66 f	7.70 M	7.76 f	7.29 f	8.42 M	8.50 f	7.91 f	9.14 M	9.23 f
5 kN/m ²	6.25 f	6.96 M	7.28 f	6.85 f	7.62 M	7.97 f	7.44 f	8.28 M	8.66 f
6 kN/m ²	5.93 f	6.41 M	6.89 f	6.50 f	7.02 M	7.56 f	7.06 f	7.63 M	8.22 M
7 kN/m ²	5.66 f	5.96 M	6.42 M	6.21 f	6.54 M	7.04 M	6.75 f	7.11 M	7.65 M
8 kN/m ²	5.44 f	5.60 M	6.03 M	5.96 f	6.14 M	6.61 M	6.49 f	6.68 M	7.19 M
9 kN/m ²	5.25 f	5.30 M	5.70 M	5.75 f	5.81 M	6.25 M	6.26 f	6.32 M	6.81 M
10 kN/m ²	5.04 M	5.04 M	5.42 M	5.53 M	5.53 M	5.95 M	6.02 M	6.02 M	6.47 M

Notes:

- Without particularly requirement for vibration and deformation
- This table is a guideline and is not to be considered static confirmation

Measurement tables I/300

DD-DiagonalDübelholz

Load (without DD own weight)	Element thickness								
	8 cm			10 cm			12 cm		
	1-field	2-field	3-field	1-field	2-field	3-field	1-field	2-field	3-field
1 kN/m ²	3.58 f	4.41 f	4.19 f	4.39 f	5.42 f	5.14 f	5.17 f	6.40 f	6.07 f
2 kN/m ²	2.96 f	3.63 f	3.45 f	3.67 f	4.49 f	4.27 f	4.35 f	5.34 f	5.08 f
3 kN/m ²	2.63 f	3.21 f	3.06 f	3.26 f	3.99 f	3.79 f	3.89 f	4.75 f	4.52 f
4 kN/m ²	2.41 f	2.93 f	2.80 f	2.99 f	3.65 f	3.48 f	3.57 f	4.36 f	4.15 f
5 kN/m ²	2.25 f	2.73 f	2.61 f	2.79 f	3.41 f	3.24 f	3.34 f	4.07 f	3.88 f
6 kN/m ²	2.12 f	2.58 f	2.46 f	2.64 f	3.22 f	3.06 f	3.16 f	3.85 f	3.66 f
7 kN/m ²	2.02 f	2.43 M	2.34 f	2.51 f	3.03 M	2.92 f	3.01 f	3.63 M	3.49 f
8 kN/m ²	1.93 f	2.28 M	2.24 f	2.41 f	2.84 M	2.80 f	2.88 f	3.40 M	3.35 f
9 kN/m ²	1.86 f	2.15 M	2.16 f	2.32 f	2.68 M	2.69 f	2.78 f	3.21 M	3.22 f
10 kN/m ²	1.80 f	2.05 M	2.09 f	2.24 f	2.55 M	2.60 f	2.69 f	3.05 M	3.12 f

Load (without DD own weight)	Element thickness								
	14 cm			16 cm			18 cm		
	1-field	2-field	3-field	1-field	2-field	3-field	1-field	2-field	3-field
1 kN/m ²	5.92 f	7.35 f	6.96 f	6.65 f	8.28 f	7.84 f	7.36 f	9.18 f	8.68 f
2 kN/m ²	5.02 f	6.18 f	5.87 f	5.68 f	7.00 f	6.65 f	6.33 f	7.81 f	7.41 f
3 kN/m ²	4.50 f	5.51 f	5.24 f	5.10 f	6.26 f	5.95 f	5.70 f	7.00 f	6.65 f
4 kN/m ²	4.14 f	5.06 f	4.82 f	4.71 f	5.76 f	5.48 f	5.27 f	6.45 f	6.13 f
5 kN/m ²	3.88 f	4.73 f	4.50 f	4.41 f	5.39 f	5.13 f	4.94 f	6.04 f	5.74 f
6 kN/m ²	3.67 f	4.47 f	4.26 f	4.17 f	5.09 f	4.85 f	4.68 f	5.71 f	5.44 f
7 kN/m ²	3.50 f	4.22 M	4.06 f	3.98 f	4.80 M	4.63 f	4.47 f	5.38 M	5.19 f
8 kN/m ²	3.35 f	3.96 M	3.89 f	3.82 f	4.51 M	4.44 f	4.29 f	5.06 M	4.98 f
9 kN/m ²	3.23 f	3.74 M	3.75 f	3.69 f	4.26 M	4.28 f	4.13 f	4.78 M	4.80 f
10 kN/m ²	3.13 f	3.55 M	3.63 f	3.57 f	4.05 M	4.14 f	4.00 f	4.55 M	4.64 f

Load (without DD own weight)	Element thickness								
	20 cm			22 cm			24 cm		
	1-field	2-field	3-field	1-field	2-field	3-field	1-field	2-field	3-field
1 kN/m ²	8.05 f	10.06 f	9.51 f	8.72 f	10.92 f	10.32 f	9.37 f	11.77 f	11.11 f
2 kN/m ²	6.97 f	8.60 f	8.16 f	7.59 f	9.39 f	8.90 f	8.20 f	10.16 f	9.63 f
3 kN/m ²	6.29 f	7.73 f	7.35 f	6.87 f	8.46 f	8.03 f	7.45 f	9.17 f	8.71 f
4 kN/m ²	5.82 f	7.13 f	6.78 f	6.37 f	7.81 f	7.42 f	6.91 f	8.48 f	8.06 f
5 kN/m ²	5.46 f	6.68 f	6.36 f	5.98 f	7.32 f	6.96 f	6.50 f	7.96 f	7.57 f
6 kN/m ²	5.18 f	6.33 f	6.02 f	5.67 f	6.94 f	6.60 f	6.17 f	7.54 f	7.18 f
7 kN/m ²	4.95 f	5.96 M	5.75 f	5.42 f	6.54 M	6.30 f	5.90 f	7.11 M	6.86 f
8 kN/m ²	4.75 f	5.60 M	5.52 f	5.21 f	6.14 M	6.05 f	5.67 f	6.68 M	6.59 f
9 kN/m ²	4.58 f	5.30 M	5.32 f	5.03 f	5.81 M	5.84 f	5.47 f	6.32 M	6.36 f
10 kN/m ²	4.44 f	5.04 M	5.15 f	4.87 f	5.53 M	5.65 f	5.30 f	6.02 M	6.15 f

Notes:

- Without particularly requirement for vibration and deformation
- This table is a guideline and is not to be considered static confirmation

DD-DiagonalDübelholz

Reference:

The complete classification reports, as well as proof of the reusability of the classification reports of the IBS (Austrian institute for fire safety technology and safety research), by which both the

DiagonalDübelholz wall elements, and the DiagonalDübelholz ceiling elements have been classified as per ÖNORM EN 13501-2 in fire resistance class “REI 60”,

can be found for download on our website at:

www.sohm-holzbau.at/diagonalduebelholz/infos-downloads

Measurements DD

Fire protection DD



DiagonalDübelholz

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